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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/424,223	04/19/1995	JOSEPH HUMMEL	10-142C3	9189

7590

03/31/2004

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EXAMINER

WORRELL JR, LARRY D

ART UNIT	PAPER NUMBER
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3765

29

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

08/424,223

Applicant(s)

HUMMEL, JOSEPH

Examiner

Danny Worrell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 4, 7-10, 13, 14, 19-24 and 27-34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, 3, 5, 6, 17, 18, 25 and 26 is/are allowed.
- 6) ☒ Claim(s) 1, 11, 12, 15, 16, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

Claims 1, 11/1, 12/11/1, 15/1, 16/11/1, 35/1 and 36/35/1 are rejected under 35 U.S.C. § 103 as being unpatentable over Bettcher in view of the admittedly known normal strength fiber or yarn VECTRAN M described in appellant's specification at pages 2-4. Bettcher discloses a cut-resistant yarn (Fig. 1) having the construction broadly set forth in claim 1 on appeal, with the exception that this patent does not disclose or teach that "at least one of" the core, first wrapping and second wrapping of the composite yarn therein be comprised of a liquid crystal polymer fiber having a tenacity of no more than 10 grams per denier. However, Bettcher does teach that the yarn therein has a second wrapping or winding (14) which is preferably one having low friction, light weight, a silk-like hand, that is fast drying, resistant to light and low in cost, preferably, for example, nylon or a polyester (e.g., Dacron), both of which are recognized as normal strength fibers. Similarly, appellant's specification (pages 2-4) and brief (pages 13-14)<sup>1</sup> indicate that VECTRAN M sold by Hoechst Celanese Corp. is a normal strength fiber having good abrasion resistance, high impermeability, excellent property retention over a broad temperature range, low moisture absorption, can be laundered at high temperatures conventionally used for industrial fabrics, etc.. Given the nature of the known VECTRAN M fiber vis-a-vis the other normal strength fibers (e.g., nylon and polyester) for use in the second wrapping (14) of

Bettcher, it is our opinion that it would have been obvious to one of ordinary skill in the art at the time of appellant's invention to use the normal strength synthetic fiber VECTRAN M as one of the fibers for the second wrapping (14) of Bettcher so as to gain the self-evident benefits thereof relative to the underlying high strength Kevlar fiber wrapping (12) over which it would be applied. As for the claims requiring a metal strand in the cut-resistant yarn, we note the disclosure of Bettcher at column 1, lines 46-58, and column 2, lines 51-55. Bettcher also discloses (e.g., Fig. 2 and col. 4, line 48+) that the composite yarn therein may be formed into protective apparel, such as a cut-resistant protective glove.

### *Response to Arguments*

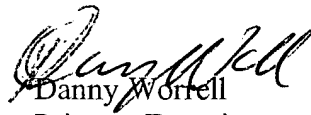
Applicant's arguments filed 6/22/01 have been fully considered but they are not persuasive. Applicant argues that the statement "there is nothing within the disclosure of Bettcher that would preclude the inclusion a slightly stiffer fiber such as Vectran M" is not a motivation for obviousness. It should be noted that the examiner has never set forth this as reason for combining the prior art. The Board decision of 10/27/00 originally set forth the reasons why the combination of prior art was obvious, namely good abrasion resistance, high impermeability, excellent property retention over a broad temperature range, low moisture absorption, etc.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Worrell whose telephone number is 703/308-0889. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 703/305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Danny Worrell  
Primary Examiner  
Art Unit 3765

LDW